

Recombinant Rat Interleukin 12b

Cat. No. II12b-86R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Interleukin-12 produced in Sf9 insect cells is a glycosylated disulfide linked heterodimeric polypeptide containing 503 amino acids and having a molecular weight of 70 kDa comprised of disulfide-bonded 35 kDa (p35) and 40 kDa (p40) subunits. The IL-12 is purified by proprietary chromatographic techniques.
Species	Rat
Source	Insect Cells
Description	IL-12 is a heterodimeric cytokine that stimulates the production of interferon gamma from T-cells and natural killer cells, and also induces differentiation of Th1 helper cells. It is an initiator of cell-mediated immunity.
Amino Acid Sequence	The sequence of the first five N-terminal amino acids was determined and found to be Arg-Val-Ile-Pro-Val at the p35 subunit and Met-Thr-Glu-Leu-Glu at the p40 subunit.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	Greater than 95.8% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Formulation	The protein (1 mg/ml) was lyophilized with no additives.
Solubility	It is recommended to reconstitute the lyophilized Interleukin 12 in sterile 18 MΩ-cm H ₂ O not less than 100 g/ml, which can then be further diluted to other aqueous

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

solutions.

Specific Activity

The ED₅₀ was determined by the stimulation of IFN-gamma production by murine splenocytes co-stimulated with IL-12 and was found to be < 0.1 ng/ml, corresponding to a specific activity of >1 x 10⁷.

Stability

Lyophilized Interleukin-12 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL12 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name

IL12b interleukin 12b [*Rattus norvegicus*]

Synonyms

IL12b; interleukin 12b; IL12; interleukin-12 p40

Gene ID

64546

mRNA Refseq

NM_022611

Protein Refseq

NP_072133

UniProt ID

Q62712

Chromosome Location

10q21

Pathway

Allograft rejection; Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway; RIG-I-like receptor signaling pathway; Toll-like receptor signaling pathway;

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Type I diabetes mellitus

Function

cytokine activity; contributes_to cytokine activity; cytokine receptor activity; contributes_to growth factor activity; interleukin-12 alpha subunit binding; protein binding; protein homodimerization activity

PDB rendering based on 1f42.

